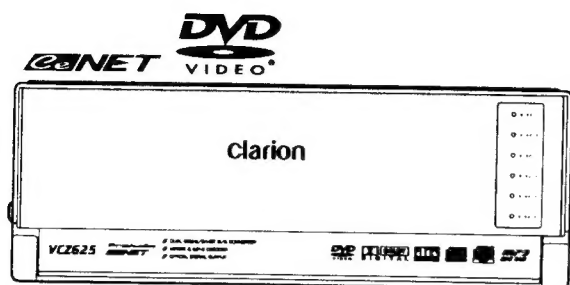
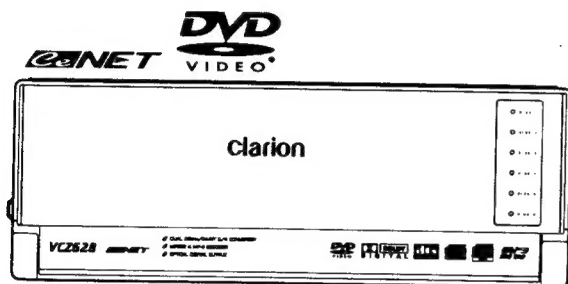


# Service Manual



VCZ625 ( PE-2446B / PE-2446K )



VCZ628 ( PE-2446E )

6 Disc DVD / CD Changer

Model **VCZ625**

(PE-2446B / for U.S.A.)

(PE-2446K / for Other Countries)

Model **VCZ628**

(PE-2446E / for Europe)

## SPECIFICATIONS

### DVD player section

System:	Digital Versatile Disc system with CDDA capable
Usable discs:	DVD video disc, compact disc
Frequency response:	20Hz to 20kHz(±1dB)
Signal to noise ratio:	90dB
Distortion:	0.02%
Channel separation:	80dB
Analog audio output:	1.8Vrms

### General

Power supply voltage:	DC14.4V (10.8V to 15.6V allowable) Negative ground
Current consumption:	Less than 1.5A
Dimensions(mm):	source unit: 230(W)×83(H)×183(D) remote control unit: 54(W)×27.2(H)×155(D) remote control receiver: 22(W)×41.5(H)×13.3(D)
Weight:	source unit:2.2kg remote control unit: 130g(including battery) remote control receiver:33g

## NOTES

- ※ This unit is a ID3 Tag compatible model.  
This unit supports the title, artist and album display of the ID3 Tag versions 1 and 1.1.
- ※ Only use the magazine, the Clarion Model CAA-397.
- ※ We cannot supply PWB with component parts in principle. When a circuit on PWB has failure, please repair it by component parts base. Parts which are not mentioned in service manual are not supplied.
- ※ Specifications and design are subject to change without notice for further improvement.

## COMPONENTS

PE-2446B-A, E-A, K-A, K-B

Main unit	-----	1
Ce-NET cable(5m)	855-3416-50	1
Power cord(5m)	854-6390-01	1
Fuse(3A)	120-0030-00	1
Parts bag	-----	
Installation nut(M5)	722-0545-00	4
Installation bolt(M5×8)	734-5008-37	4
Clamping band	335-0833-01	2
Parts bag	-----	
Cushion rubber	345-7651-00	2
Bracket with bolt	300-9725-01	2
Bracket for installing the main unit (for vertical installation)	300-7909-00	2
(for horizontal installation)	300-7910-00	2
Batteries for remote control unit	-----	2
Remote control unit	RCB-161-600	1
CD magazine	CAA-397-900	1
Remote control receiver	CAA-372-301	1
RCA pin cord(audio,5m)(red/white)	855-5439-50	1
RCA pin cord(video,5m)(yellow)	855-5422-52	1
Ferrite core	060-8041-01	1

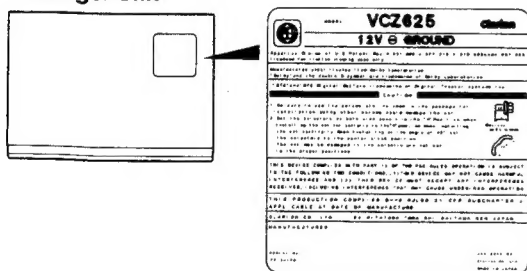
## CAUTIONS

Use of controls, adjustment or performance of procedures other than those specified herein, may result in hazardous radiation exposure.

The COMPACT DISC player should not be adjusted or repaired by anyone except properly qualified service personnel.

(for U.S.A. model)

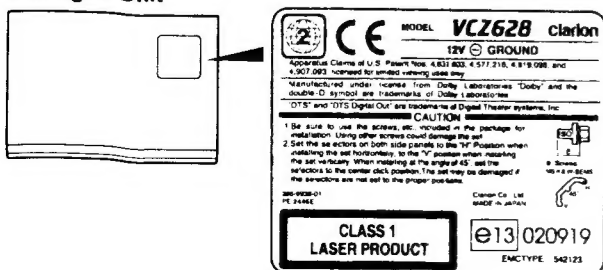
Bottom View of CD Changer Unit



This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUCT". To use this model properly, read this Owner's Manual carefully and keep this manual for your future reference. In case of any trouble with this player, please contact your nearest "AUTHORIZED service station". To prevent direct exposure to the laser beam, do not to open the enclosure.

(for European model)

Bottom View of CD Changer Unit



VCZ625/VCZ628

## To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

### 1. Use specified parts.

The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them.

The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.

### 2. Place the parts and wiring back in their original positions after replacement or re-wiring.

For proper circuit construction, use of insulation tubes, bonding, gaps to PWB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection.

If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.

### 3. Check for safety after repair.

Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary problems around the repaired spots.

If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

### 4. Caution in removal and making wiring connection to the parts for the automobile.

Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur. If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

### 5. Cautions regarding chips.

Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.

### 6. Cautions in handling flexible PWB

Before working with a soldering iron, make sure that the iron tip temperature is around 270°C. Take care not to apply the iron tip repeatedly (more than three times) to the same patterns. Also take care not to apply the tip with force.

### 7. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

### 8. Cautions in checking that the optical pickup lights up.

The laser is focused on the disc reflection surface through

the lens of the optical pickup. When checking that the laser optical diode lights up, keep your eyes more than 30cms away from the lens. Prolonged viewing of the laser within 30cms may damage your eyesight.

#### 9. Cautions in handling the optical pickup

The laser diode of the optical pickup can be damaged by electrostatic charge caused by your clothes and body. Make sure to avoid electrostatic charges on your clothes or body, or discharge static electricity before handling the optical pickup.

#### 9-1. Laser diode

The laser diode terminals are shorted for transportation in order to prevent electrostatic damage. After replacement, open the shorted circuit. When removing the pickup from the mechanism, short the terminals by soldering them to prevent this damage.

#### 9-2. Actuator

The actuator has a powerful magnetic circuit. If a magnetic material is put close to it, its characteristics will change. Ensure that no foreign substances enter through the ventilation slots in the cover.

#### 9-3. Cleaning the lens

Dust on the optical lens affects performance. To clean the lens, apply a small amount of isopropyl alcohol to lens paper and wipe the lens gently.

#### 5. Note on region numbers

The DVD video system assigns a region number to DVD video players and DVD discs by sales area.

DVD video players sold in the United States can play back DVD discs with the region number "ALL", "1" or any combination of numbers that also incorporate a "1". The DVD video region number is marked on the disc jacket as shown below.



NTSC



NTSC



NTSC

#### 6. TV color system

This DVD player plays NTSC discs and PAL discs only and cannot be used for playback of SECAM discs.

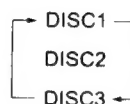
#### 7. About MP3 playback

This unit can play back CD-R/CD-RW discs on which MP3 music data have been recorded.

#### 8. Auto disc change

This unit auto disc changes only audio CDs. For example:

If an audio CD is loaded in the DISC 1 slot, a DVD disc in the DISC 2 slot and an audio CD in the DISC 3 slot, disc change is performed shown below.



## ■ DVD VIDEO SYSTEM

#### 1. Playable discs

This DVD video player can play the following discs.



When you play a CD Extra disc, only the first session will be recognized.

#### 2. About CD Extra discs

A CD Extra disc is a disc in which a total of two sessions have been recorded.

The first session is Audio session and the second session is Data session.

Your personally-created CDs with more than 2 data sessions recorded cannot be played on this DVD video player.

#### 3. About playing a CD-R/CD-RW disc

This player can play CD-R/CD-RW discs previously recorded in music CD format or video CD format.

#### 4. Discs that cannot be played back

This DVD video player cannot play back DVD-R, DVD-RAM, Photo CDs, etc.

#### Notes:

It may also not be possible to play back CDs recorded on a CD-R unit and CD-RW unit.

(Cause: disc characteristics, cracks, dust/dirt, dust/dirt on players lens, etc.)

If a CD-R or CD-RW disc that has not been finalized is played, it will take a long time to start playing. Also, it may not be possible to play depending on its recording conditions.

## ■ ERROR DISPLAYS

If an error occurs, one of the following displays is displayed. Take the measures described below to eliminate the problem.

Error	Cause	Measure
MECHA ERROR	The failure of the changer itself considered.	This is a failure of the changer's mechanism.
DISC ERROR (ERROR 6)	<ol style="list-style-type: none"> <li>1. A DVD/CD cannot be played due to scratches, etc.</li> <li>2. A DVD/CD cannot be played due to the defective pick-up part.</li> <li>3. The disc is placed up side down.</li> </ol>	Replace with a non-scratched, non-wrapped-disc. Replace the disc with face up.
WRONG REGION	Disc region code incorrect.	Use a disc with the correct region code.
PARENTAL VIOLATION	The view is limited.	Release the view limitation or change the parental level.

If an error display other than the ones described above appears, press the reset button.

When the reset button is pressed, frequencies of TV/radio stations, titles, etc. stored in the memory are cleared.

## ■ TROUBLESHOOTING

Problem	Cause	Measure
Power does not turn on. (No sound is produced.)	Fuse is blown.	Replace with a fuse 3A of the same amperage.
	The microprocessor has malfunctioned due to noise, etc.	Press the reset button with a thin rod. When the reset button is pressed, turn off the ACC power. <div data-bbox="997 1030 1284 1153" data-label="Image"> </div> <div data-bbox="1173 1164 1300 1198" data-label="Caption"> <p>Reset button</p> </div>
	The setting of the CeNET/STAND ALONE select switch is not correct.	Set the switch to the correct position.
Nothing happens when buttons are pressed.	The microprocessor has malfunctioned due to noise, etc.	Press the reset button with a thin rod. When the reset button is pressed, turn off the ACC power.
Noise, skipping	The installation selector levers are set to different positions on both sides.	Set the installation selector levers to the same position on both sides.
	The unit installation direction and the installation selector lever positions do not match.	Set the unit installation direction and the installation selector lever positions to match each other. When installed at an angle, change the installation selector lever to a position (H, 45°, V) not prone to noise or sound loss.
	Disc bent or badly damaged.	Compare with another disc. If bad, discard the damaged disc.



## ■ EXPLANATION OF IC

052-5052-00 TMP95CW64F

Mechanism controller

### 1. Terminal Description

pin 1: A Vref	IN: Reference voltage for the internal ADC.	pin 65: DVD/CD	O: DVD/CD distinction signal output
pin 2: A VSS	-: Analog ground	pin 66: LAYER	O: Layer distinction signal output
pin 3: A VCC	-: Positive supply voltage for the internal analog section.	pin 67: NU	-: Not in use
pin 4: NU	-: Not in use.	pin 68: MG SW	IN: Magazine switch input.
pin 5: NU	-: Not in use.	pin 69: POS SW	IN: Datum point signal input to detect the disc number.
pin 6: Connect pin 7	IN: Connect to pin 7.	pin 70: D NO SW	IN: Disk number switch input.
pin 7: EJECT SW	IN: The eject key input	pin 71: 12/8	IN: 12cm/8cm
pin 8: NU	-: Not in use.	pin 72: HOLDER	IN: Holder switch input.
pin 9: SYS P 1	O: System power 1 control signal output.	pin 73: Load END	IN: Loading end switch input.
pin 10: NU	-: Not in use	pin 74: D CW	O: Up/down motor control signal output.
pin 11: DSP RESET	O: Reset signal output to the DSP IC	pin 75: D CCW	O: Up/down motor control signal output.
pin 12: T SO 0	O: Test Mode Key Scan output	pin 76: MA	O: MA
pin 13: T SO 1	O: Test Mode Key Scan output.	pin 77: S DA	I/O: The serial data input/output
pin 14: T SO 2	O: Test Mode Key Scan output.	pin 78: SCLK	O: The clock pulse output
pin 15: T SO 3	O: Test Mode Key Scan output.	pin 79: A 8	O: Address signal output.
pin 16: LDM CW	O: Loading motor control output	pin 80: A 7	O: Address signal output
pin 17: LDM CCW	O: Loading motor control output	pin 81: A 6	O: Address signal output
pin 18: TX	O: Serial data output.	pin 82: A 5	O: Address signal output.
pin 19: RX	IN: Serial data input.	pin 83: A 4	O: Address signal output.
pin 20: DEC CS	O: Chip select signal output to the decoder	pin 84: A 3	O: Address signal output.
pin 21: DSP CS	O: Chip select signal output to the DSP	pin 85: A 2	O: Address signal output.
pin 22: NU	-: Not in use	pin 86: A 1	O: Address signal output.
pin 23: MOTOR MUTE	O: Mute signal output the motor driver	pin 87: A 0	O: Address signal output.
pin 24: NU	-: Not in use.	pin 88: READ	O: Read command output
pin 25: VCC	-: Positive supply voltage.	pin 89: WRITE	O: Write command output
pin 26: VSS	-: Negative supply voltage.	pin 90: NU	-: Not in use.
pin 27: X 1	-: Crystal connection.	pin 91: VSS	-: Negative supply voltage.
pin 28: X 2	-: Crystal connection.	pin 92: T SI 0	IN: Test Mode Key Scan input
pin 29: CON VCC	-: Connect to VCC.	pin 93: T SI 1	IN: Test Mode Key Scan input.
pin 30: RESET	IN: Reset signal input.	pin 94: T SI 2	IN: Test Mode Key Scan input.
pin 31: ACC CONT	IN: ACC control signal input	pin 95: T SI 3	IN: Test Mode Key Scan input.
pin 32: NU	-: Not in use.	pin 96: TM1I	IN: Test Mode Select input
pin 33: LOAD/EJECT	-: LOAD/EJECT TIME	pin 97: TM2I	IN: Test Mode Select input.
pin 34: FG PULSE	IN: FG pulse input.	pin 98: LIMIT SW	IN: Inside limit switch input.
pin 35: SPIN BRAKE	O: The brake command output to the spindle motor.	pin 99: NU	-: Not in use.
pin 36: NU	-: Not in use.	pin100: A Vref	IN: Reference voltage for the internal ADC.
pin 37: DSP INT	IN: The interrupt command input from the DSP.		
pin 38: NU	-: Not in use.		
pin 39: NU	-: Not in use.		
pin 40: NU	-: Not in use.		
pin 41: DEC INT	IN: The interrupt command input from the decoder.		
pin 42: NU	-: Not in use.		
pin 43: DEC RESET	O: The reset signal output to the decoder.		
pin 44: VCC	-: Positive supply voltage.		
pin 45: M D 0	I/O: Data bus to MPU		
pin 46: M D 1	I/O: Data bus to MPU.		
pin 47: M D 2	I/O: Data bus to MPU.		
pin 48: M D 3	I/O: Data bus to MPU.		
pin 49: M D 4	I/O: Data bus to MPU		
pin 50: M D 5	I/O: Data bus to MPU.		
pin 51: M D 6	I/O: Data bus to MPU		
pin 52: M D 7	I/O: Data bus to MPU.		
pin 53: T RD	O: Test mode display control.		
pin 54: T RW	O: Test mode display control.		
pin 55: T E	O: Test mode display control.		
pin 56: NU	-: Not in use.		
pin 57: T DB 4	I/O: Test mode display control.		
pin 58: T DB 5	I/O: Test mode display control.		
pin 59: T DB 6	I/O: Test mode display control.		
pin 60: T DB 7	I/O: Test mode display control.		
pin 61: CON VCC	-: Connect to VCC.		
pin 62: VSS	-: Negative supply voltage.		
pin 63: VCC	-: Positive supply voltage.		
pin 64: NU	-: Not in use.		

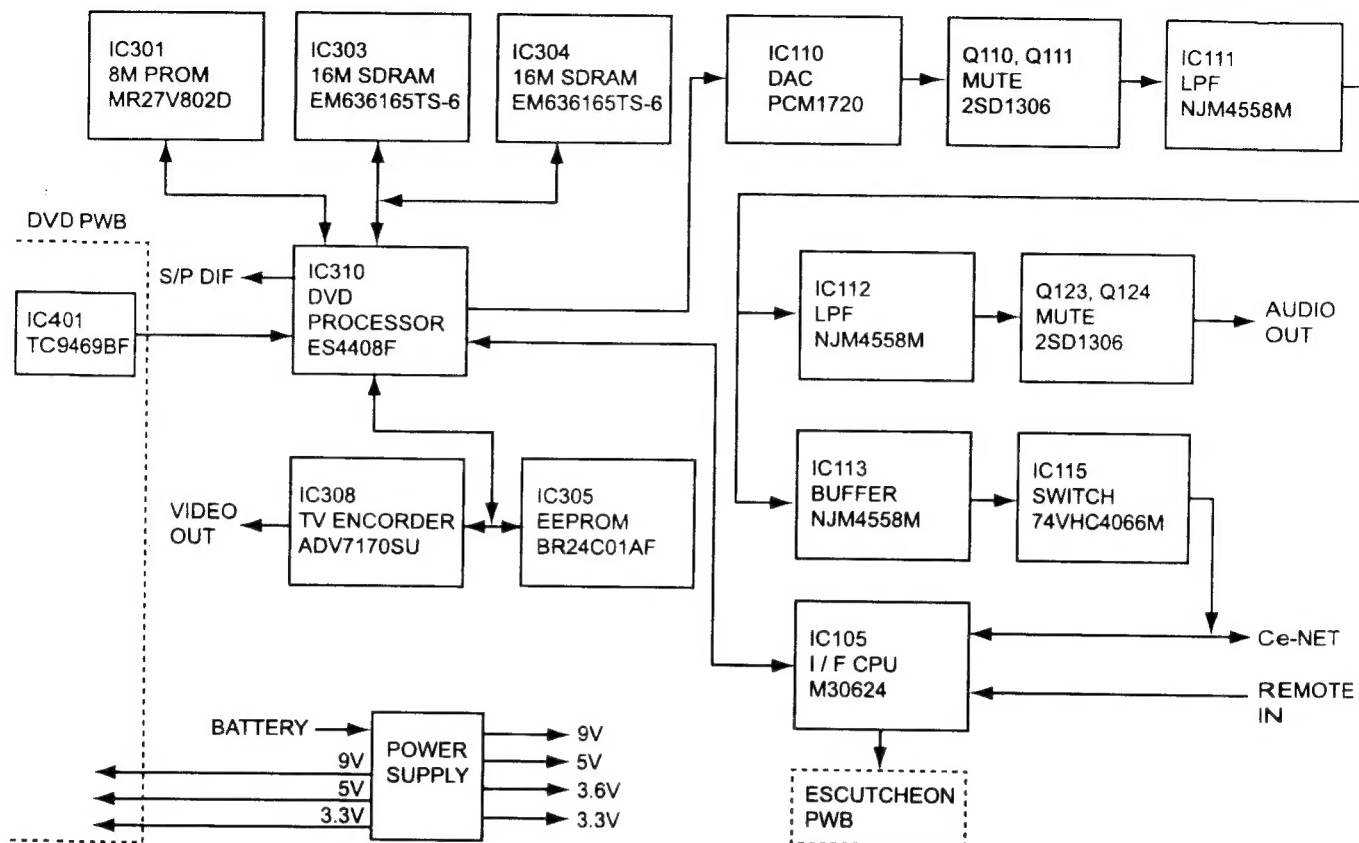
## 1 Terminal Description

pin 1: REMOTE IN	IN	Remote controller signal input.
pin 2: NU	-	Not in use.
pin 3: NU	-	Not in use.
pin 4: NU	-	Not in use.
pin 5: NU	-	Not in use.
pin 6: CONN GND	-	Connect to the ground.
pin 7: CONN GND	-	Connect to the ground.
pin 8: NU	-	Not in use.
pin 9: NU	-	Not in use.
pin 10: RESET	IN	Reset signal input.
pin 11: X OUT	O	Crystal connection.
pin 12: GND	-	Ground.
pin 13: X IN	IN	Crystal connection.
pin 14: VCC	-	Positive supply voltage.
pin 15: CON VCC	-	Connect to VCC.
pin 16: BACKUP MONI	IN	Backup voltage detect signal input.
pin 17: ACC MONI	IN	ACC monitor.
pin 18: MG SW	IN	Magazine switch input.
pin 19: Connect 27	-	Connect to pin27.
pin 20: NU	-	Not in use.
pin 21: NU	-	Not in use.
pin 22: STA/Ce-NET	IN	Stand alone/Ce-NET select signal input.
pin 23: NU	-	Not in use.
pin 24: NU	-	Not in use.
pin 25: TEST	IN	For the test.
pin 26: NU	-	Not in use.
pin 27: Ce-NET DI	IN	Ce-NET Data input.
pin 28: Ce-NET DO	O	Ce-NET Data output.
pin 29: DEC DO	O	Decoder control signal output.
pin 30: NU	-	Not in use.
pin 31: DEC CLOCK O	O	Decoder control clock output.
pin 32: NU	-	Not in use.
pin 33: NU	-	Not in use.
pin 34: DEC DI	IN	Decoder control signal input.
pin 35: DEC CLOCK I	IN	Decoder control clock input.
pin 36: NU	-	Not in use.
pin 37: NU	-	Not in use.
pin 38: NU	-	Not in use.
pin 39: CONN GND	-	Connect to the ground.
pin 40: NU	-	Not in use.
pin 41: NU	-	Not in use.
pin 42: NU	-	Not in use.
pin 43: NU	-	Not in use.
pin 44: CONN GND	-	Connect to the ground.
pin 45: NU	-	Not in use.
pin 46: NU	-	Not in use.
pin 47: NU	-	Not in use.
pin 48: NU	-	Not in use.
pin 49: FE RESET	O	Reset pulse output to FE mechanism.
pin 50: DEC RESET	O	The reset signal output to the decoder.
pin 51: PON 2	O	Power ON signal output.
pin 52: PON 1	O	Power ON signal output.
pin 53: NU	-	Not in use.
pin 54: NU	-	Not in use.
pin 55: NU	-	Not in use.
pin 56: Ce-NET A SW	O	Ce-NET Audio switch control output.
pin 57: NTSC/PAL	IN	NTSC/PAL select signal input.
pin 58: SYS P 1	IN	System power 1 control signal input.
pin 59: NU	-	Not in use.
pin 60: VCC	-	Positive supply voltage.
pin 61: ACC CONT	O	ACC control signal output.
pin 62: GND	-	Ground.
pin 63: NU	-	Not in use.
pin 64: NU	-	Not in use.
pin 65: NU	-	Not in use.
pin 66: NU	-	Not in use.
pin 67: NU	-	Not in use.
pin 68: NU	-	Not in use.
pin 69: EJECT	O	Eject signal output.

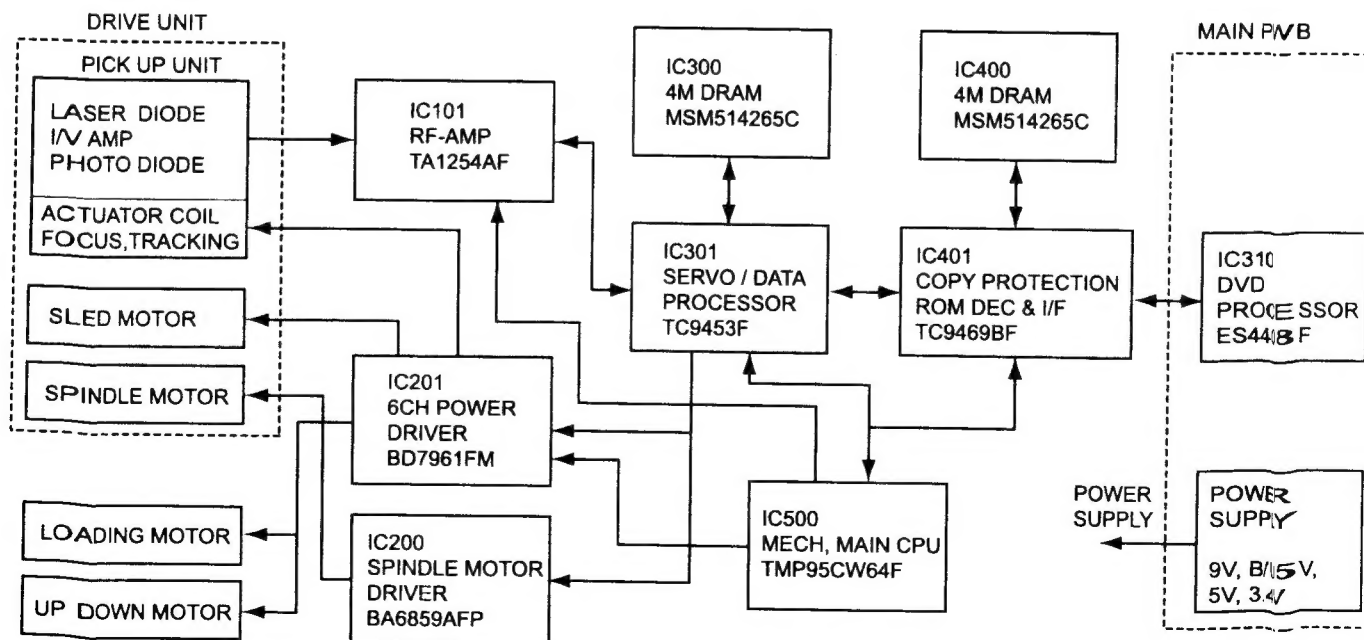
pin 70: NU	-	Not in use.
pin 71: NU	-	Not in use.
pin 72: POWER SW	IN	Power switch ON signal input.
pin 73: MG Eject SW	IN	Magazine eject switch signal input.
pin 74: NU	-	Not in use.
pin 75: LANG	IN	Program language select signal input.
pin 76: NU	-	Not in use.
pin 77: NU	-	Not in use.
pin 78: NU	-	Not in use.
pin 79: NU	-	Not in use.
pin 80: EJ LED	O	Eject LED control signal output.
pin 81: ES LED DO	O	Serial data output to the escutcheon LED controller.
pin 82: ES LED CK	O	Clock pulse output to the escutcheon LED controller.
pin 83: ES LED LA	O	Latch pulse output to the escutcheon LED controller.
pin 84: NU	-	Not in use.
pin 85: NU	-	Not in use.
pin 86: NU	-	Not in use.
pin 87: NU	-	Not in use.
pin 88: NU	-	Not in use.
pin 89: NU	-	Not in use.
pin 90: NU	-	Not in use.
pin 91: NU	-	Not in use.
pin 92: NU	-	Not in use.
pin 93: NU	-	Not in use.
pin 94: A VSS	-	Analog ground.
pin 95: NU	-	Not in use.
pin 96: Vref	-	Reference voltage.
pin 97: A VCC	-	Positive supply voltage for the internal analog section.
pin 98: NU	-	Not in use.
pin 99: NU	-	Not in use.
pin100: NU	-	Not in use.

## ■ BLOCK DIAGRAM

Main section

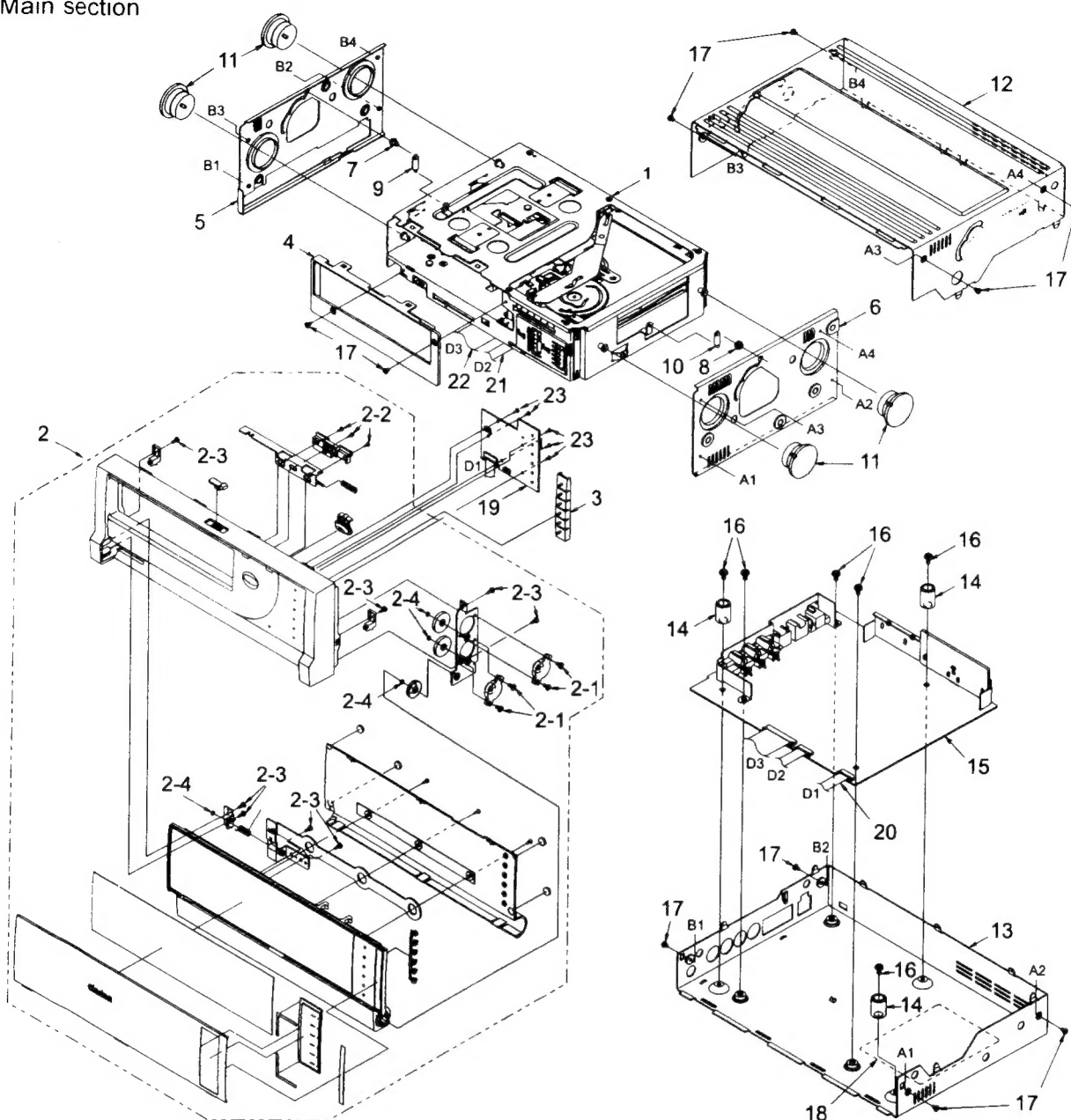


DVD changer mechanism section



# EXPLODED VIEW · PARTS LIST

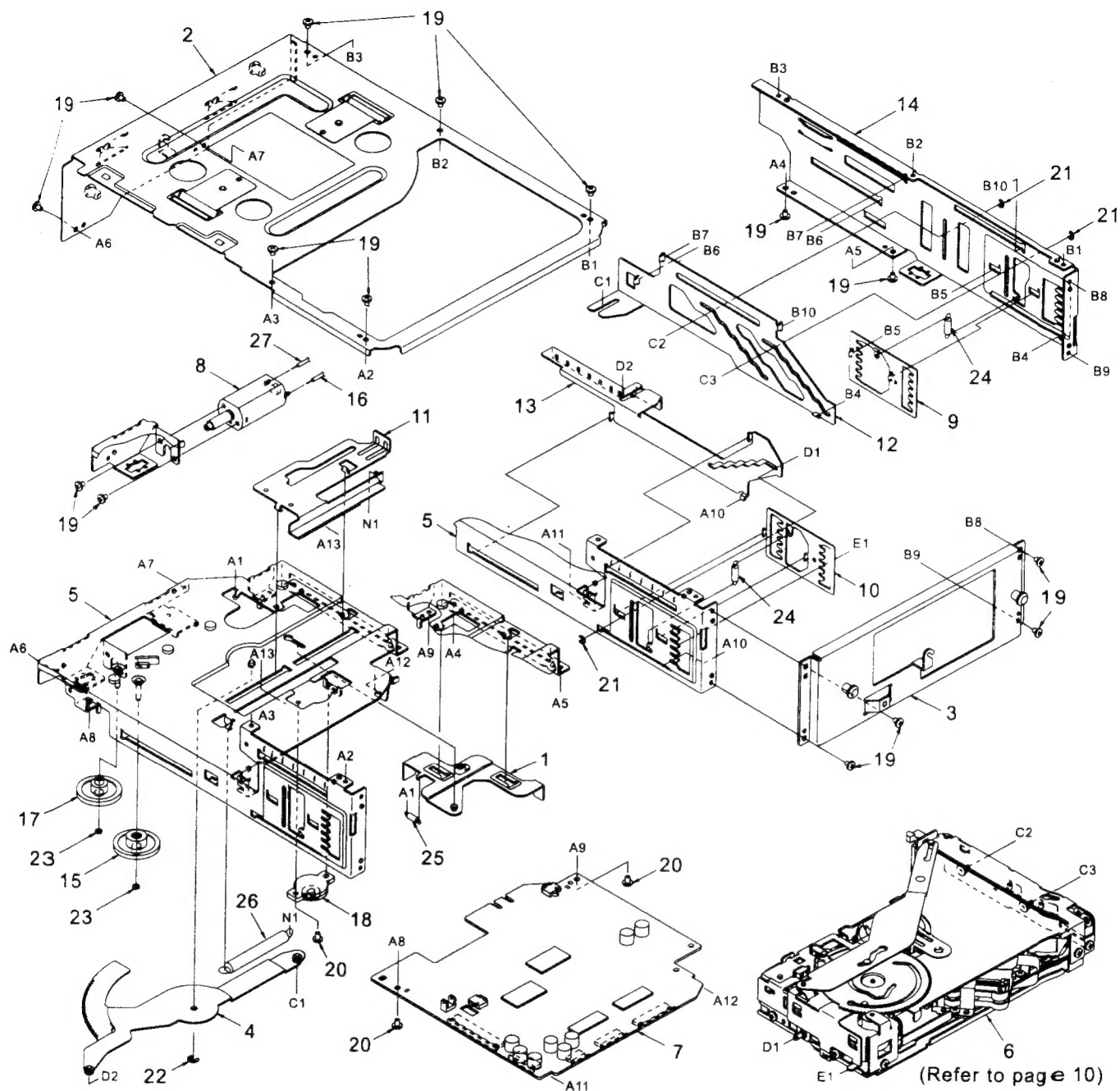
Main section



NO.	PART NO.	DESCRIPTION	Q'TY
1	-----	DVD CHANGER MECHANISM 220000929	1
2	940-7979-06 940-7997-03	ESCUTCHEON ASSY(VCZ625) ESCUTCHEON ASSY(VCZ628)	1
2-1	716-1670-00	SCREW(M2×4)	4
2-2	716-0872-00	PAD SCREW(M1.7×5 SILVER)	3
2-3	716-1758-00	PAD SCREW	8
2-4	746-0761-00	WASHER(Φ1.6 to 2.5)	4
3	335-6711-01	ILLUMI PARTS	1
4	371-5716-00	TRIM PLATE	1
5	620-1562-00	DAMPER PLATE-L	1
6	620-1563-00	DAMPER PLATE-R	1
7	622-1546-20	FL-PIN C	1
8	622-1545-20	FL-PIN R	1
9	750-3460-21	FL SPRING	1
10	750-3459-21	FL SPRING SR	1
11	629-0080-00	DAMPER GS-6	4

NO.	PART NO.	DESCRIPTION	Q'TY
12	310-1750-02	UPPER CASE	1
13	311-1847-02	LOWER CASE	1
14	335-6713-01	PIN	3
15	039-2123-02	MAIN PWB (WITHOUT COMPONENT)	1
16	716-0878-00	IT SCREW(M2.6×5)	6
17	716-1716-00	SCREW(M2×3)	10
18	286-9943-02 286-9936-01 286-9934-01 286-9968-00	SETPLATE(2446B) SETPLATE(2446E) SETPLATE(2446K-A) SETPLATE(2446K-B)	1
19	039-2124-00	ESCUTCHEON PWB (WITHOUT COMPONENT)	1
20	816-2580-00	FLAT WIRE(10P)	1
21	816-2578-00	FLAT WIRE(18P)	1
22	816-2579-00	FLAT WIRE(50P)	1
23	716-0872-00	PAD SCREW(M1.7×5 SILVER)	5

# DVD changer mechanism section

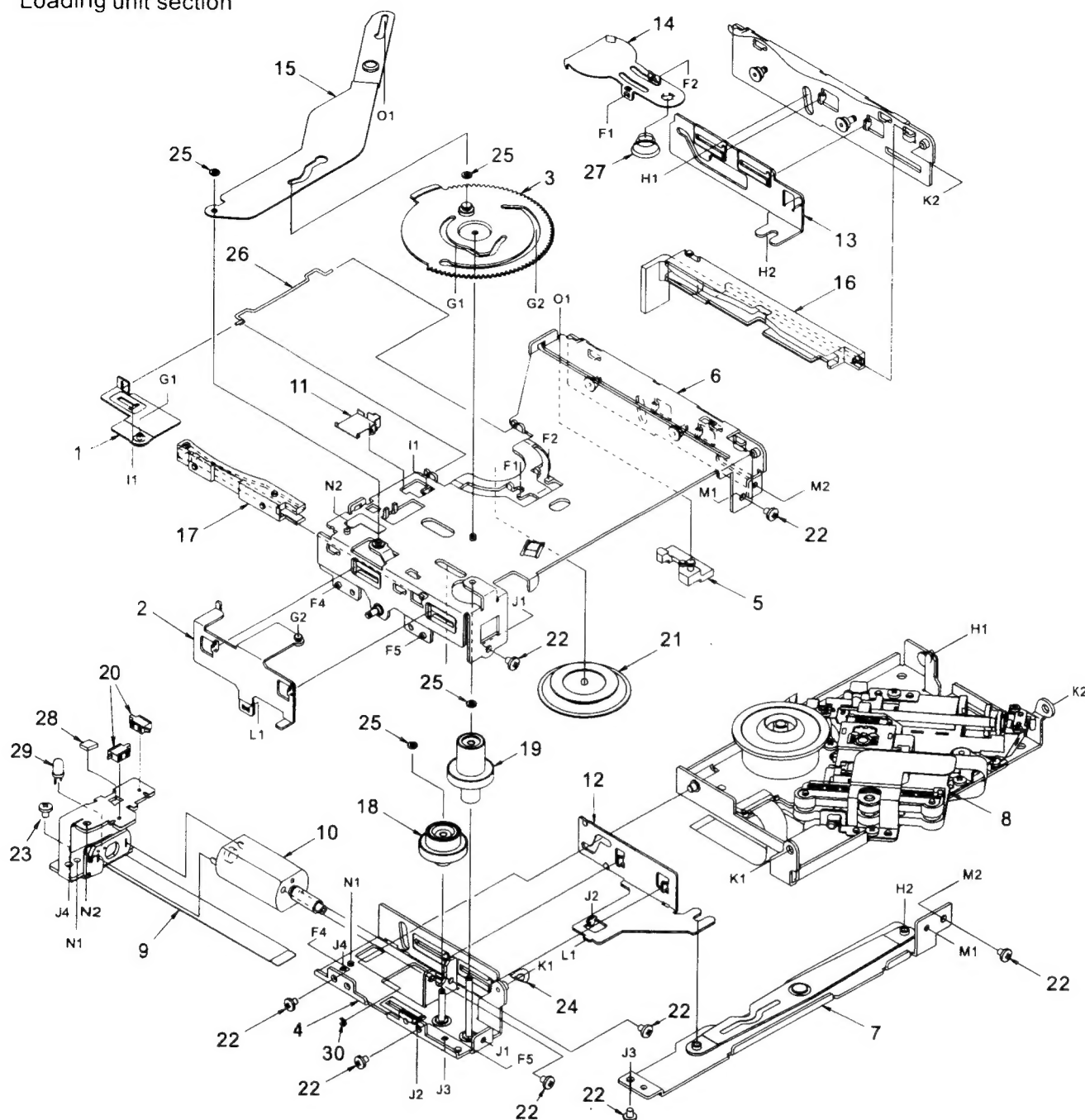


(Refer to page 10)

NO.	PART NO.	DESCRIPTION	Q'TY
1	966-0590-20	MG-LO-P-ASSY	1
2	966-0631-21	UP-PLATE-ASSY	1
3	966-0632-20	REAR-PANEL-ASSY	1
4	966-0593-20	UD-GEAR-P-ASSY	1
5	966-0594-24	V-CHASSIS ASSY	1
6	-----	LOADING UNIT	1
7	039-2121-00	DVD PWB (WITHOUT COMPONENT)	1
8	SMA-180-100	MOTOR ASSY(UP/DOWN)	1
9	620-1016-20	GAP PLATE R	1
10	620-1017-20	GAP PLATE F	1
11	620-1018-20	MG EJECT PLATE	1
12	620-1019-20	SLIDE PLATE R	1
13	620-1020-21	SLIDE PLATE F	1
14	620-1034-24	SIDE PANEL	1

NO.	PART NO.	DESCRIPTION	Q'TY
15	621-0597-20	V-GEAR A	1
16	802-4906-60	VINYL-COAT-WIRE(RED)	1
17	621-0635-20	V-HELICAL GEAR	1
18	629-0061-00	GEAR DAMPER	1
19	716-0484-00	SCREW(M2x2.5)	15
20	716-1716-00	SCREW(M2x3)	3
21	743-1500-20	E-RING	3
22	743-2000-20	E-RING	1
23	746-0761-00	WASHER	2
24	750-3462-20	GAP SPRING	2
25	750-3463-20	MG LOCK SPRING	1
26	750-3464-20	MG EJECT SPRING	1
27	800-4906-60	VINYL-COAT-WIRE(BLK)	1

# Loading unit section



NO.	PART NO.	DESCRIPTION	Q'TY
1	966-0583-20	DISC HOLD ASSY	1
2	966-0584-23	CLAMP-P-ASSY F	1
3	966-0585-22	CAM GEAR ASSY	1
4	966-0586-22	MOTOR-P-ASSY	1
5	966-0588-22	HOLDER-L-ASSY	1
6	966-0589-24	L-UPPER-P-ASSY	1
7	966-0623-23	L-LOWER-P-ASSY	1
8	HBS-519-100	DRIVE UNIT	1
9	O39-1950-20	LOADING PWB (WITHOUT COMPONENT)	1
10	SMA-188-100	MOTOR ASSY(LOADING)	1
11	620-1575-21	SWITCH PLATE	1
12	620-1007-22	CLAMP PLATE M	1
13	620-1008-24	CLAMP PLATE R	1
14	620-1009-22	CLAMPER PLATE	1
15	620-1031-21	LOADING ARM	1

NO.	PART NO.	DESCRIPTION	Q'TY
16	621-0630-22	HOLDER-G-RAIL R	1
17	621-0631-21	HOLDER-G-RAIL L	1
18	621-0703-20	L-GEAR A	1
19	621-0633-20	L-GEAR B	1
20	013-7413-50	DETECTOR SWITCH	2
21	621-0636-21	CLAMPER RING	1
22	716-0484-00	SCREW(M2×2.5)	8
23	716-1716-00	SCREW(M2×3)	1
24	745-0789-01	DRIVE WASHER	1
25	746-0761-00	WASHER	4
26	750-3461-21	DISC-H-SPRING	1
27	750-3492-22	CLAMPER SPRING	1
28	060-0252-01	PHOTO-TR	1
29	001-0563-00	LED	1
30	743-2000-20	E-RING	1



# ELECTRICAL PARTS LIST

## Main PWB(B1) section

Note) Several different parts of the same reference number are alternative parts.  
One of those parts is used in the set.

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C102	163-1063-35	16V10 $\mu$ F	C174	042-0635-52	6.3V47 $\mu$ F	C358	046-3332-78	0.033 $\mu$ F
C103	046-4722-58	4700pF	C175	046-2212-58	220pF	C359	046-1022-58	1000pF
C104	046-1022-58	1000pF	C176	046-1032-78	0.01 $\mu$ F	C360	046-1022-58	1000pF
C105	163-1073-35	16V100 $\mu$ F	C177	046-1032-78	0.01 $\mu$ F	C361	046-1022-58	1000pF
C106	163-1073-15	6.3V100 $\mu$ F	C178	046-1032-78	0.01 $\mu$ F	C362	046-1022-58	1000pF
C107	168-6832-78	0.068 $\mu$ F	C179	046-1032-78	0.01 $\mu$ F	C363	046-1022-58	1000pF
C108	046-1032-78	0.01 $\mu$ F	C180	046-1032-78	0.01 $\mu$ F	C364	046-1022-58	1000pF
C109	046-1032-78	0.01 $\mu$ F	C181	046-3332-78	0.033 $\mu$ F	C365	045-1011-50	100pF
C110	163-1073-15	6.3V100 $\mu$ F	C183	046-3332-78	0.033 $\mu$ F	C366	045-1011-50	100pF
C111	046-1032-78	0.01 $\mu$ F	C184	046-3332-78	0.033 $\mu$ F	C367	045-1011-50	100pF
C112	046-1032-78	0.01 $\mu$ F	C186	046-3332-78	0.033 $\mu$ F	C368	045-1011-50	100pF
C113	046-3332-78	0.033 $\mu$ F	C187	046-3332-78	0.033 $\mu$ F	C369	045-1011-50	100pF
C114	163-1063-35	16V10 $\mu$ F	C188	046-1022-58	1000pF	C370	045-1011-50	100pF
C115	163-1063-35	16V10 $\mu$ F	C189	046-3332-78	0.033 $\mu$ F	C371	045-1011-50	100pF
C116	046-1022-58	1000pF	C190	046-3332-78	0.033 $\mu$ F	C372	045-1011-50	100pF
C117	163-1063-35	16V10 $\mu$ F	C203	163-1073-35	16V100 $\mu$ F	C373	045-1011-50	100pF
C118	046-1032-78	0.01 $\mu$ F	C301	045-9097-50	9pF	C374	045-1011-50	100pF
C119	163-1063-35	16V10 $\mu$ F	C302	045-9097-50	9pF	C375	045-1011-50	100pF
C120	046-3332-78	0.033 $\mu$ F	C303	045-5601-50	56pF	C376	046-3332-78	0.033 $\mu$ F
C121	163-1063-35	16V10 $\mu$ F	C304	046-3312-58	330pF	C401	178-1052-78	1 $\mu$ F
C122	163-1063-35	16V10 $\mu$ F	C306	046-4712-58	470pF	C402	178-1052-78	1 $\mu$ F
C123	163-1063-35	16V10 $\mu$ F	C307	046-3332-78	0.033 $\mu$ F	C403	178-1052-78	1 $\mu$ F
C124	163-1063-35	16V10 $\mu$ F	C308	046-3332-78	0.033 $\mu$ F	C404	178-1052-78	1 $\mu$ F
C125	163-1063-35	16V10 $\mu$ F	C309	045-5601-50	56pF	C405	178-1052-78	1 $\mu$ F
C126	163-1073-35	16V100 $\mu$ F	C310	046-3312-58	330pF	C406	178-1052-78	1 $\mu$ F
C127	163-1073-15	6.3V100 $\mu$ F	C311	046-3332-78	0.033 $\mu$ F	C407	178-1052-78	1 $\mu$ F
C128	046-1032-78	0.01 $\mu$ F	C312	046-4712-58	470pF	C408	178-1052-78	1 $\mu$ F
C129	046-1032-78	0.01 $\mu$ F	C313	046-3332-78	0.033 $\mu$ F	CCT301	050-0122-61	1/16W82 $\Omega$ $\times$ 4 J
C130	045-1211-50	120pF	C314	046-3332-78	0.033 $\mu$ F	CCT302	050-0122-61	1/16W82 $\Omega$ $\times$ 4 J
C131	045-1211-50	120pF	C315	046-3332-78	0.033 $\mu$ F	CCT303	050-0122-61	1/16W82 $\Omega$ $\times$ 4 J
C132	045-2201-50	22pF	C316	046-3332-78	0.033 $\mu$ F	CCT304	050-0122-61	1/16W82 $\Omega$ $\times$ 4 J
C133	045-1211-50	120pF	C317	046-3332-78	0.033 $\mu$ F	CCT305	050-0122-61	1/16W82 $\Omega$ $\times$ 4 J
C134	046-1032-78	0.01 $\mu$ F	C318	046-3332-78	0.033 $\mu$ F	CCT306	050-0122-60	1/16W33 $\Omega$ $\times$ 4 J
C135	163-1073-35	16V100 $\mu$ F	C319	046-3332-78	0.033 $\mu$ F	CCT307	050-0122-60	1/16W33 $\Omega$ $\times$ 4 J
C136	045-1211-50	120pF	C320	046-3332-78	0.033 $\mu$ F	CCT308	050-0122-60	1/16W33 $\Omega$ $\times$ 4 J
C137	046-1032-78	0.01 $\mu$ F	C321	046-3332-78	0.033 $\mu$ F	CCT309	050-0122-60	1/16W33 $\Omega$ $\times$ 4 J
C138	045-2201-50	22pF	C322	168-1042-78	16V 0.1 $\mu$ F	CCT310	050-0122-60	1/16W33 $\Omega$ $\times$ 4 J
C139	045-2201-50	22pF	C323	046-3332-78	0.033 $\mu$ F	CCT311	050-0122-60	1/16W33 $\Omega$ $\times$ 4 J
C140	046-3332-78	0.033 $\mu$ F	C324	046-3332-78	0.033 $\mu$ F	CCT312	050-0122-61	1/16W82 $\Omega$ $\times$ 4 J
C142	163-1063-35	16V10 $\mu$ F	C325	046-3332-78	0.033 $\mu$ F	CCT313	050-0122-61	1/16W82 $\Omega$ $\times$ 4 J
C143	163-1063-35	16V10 $\mu$ F	C326	046-3332-78	0.033 $\mu$ F	CCT314	050-0122-61	1/16W82 $\Omega$ $\times$ 4 J
C144	042-0576-00	5.5V0.1F	C327	168-1042-78	16V 0.1 $\mu$ F	CCT315	050-0122-61	1/16W82 $\Omega$ $\times$ 4 J
C145	163-1073-15	6.3V100 $\mu$ F	C328	046-3332-78	0.033 $\mu$ F	D106	001-2620-90	RB060L-40
C146	046-1032-78	0.01 $\mu$ F	C329	046-3332-78	0.033 $\mu$ F	D107	001-0347-49	MA4100L
C147	046-1022-58	1000pF	C330	046-3332-78	0.033 $\mu$ F	D108	001-0504-32	HZS6A3L
C148	046-1022-58	1000pF	C331	046-3332-78	0.033 $\mu$ F	D109	001-0347-49	MA4100L
C149	163-2263-35	16V22 $\mu$ F	C332	046-3332-78	0.033 $\mu$ F	D110	001-2409-90	CRG01
C150	163-2263-35	16V22 $\mu$ F	C333	046-3332-78	0.033 $\mu$ F	D111	001-2409-90	CRG01
C151	163-2263-35	16V22 $\mu$ F	C334	163-1063-35	16V10 $\mu$ F	D112	001-0504-35	HZS6C2L
C152	163-2263-35	16V22 $\mu$ F	C335	163-1063-35	16V10 $\mu$ F	D113	001-0516-90	MA111
C153	046-1032-78	0.01 $\mu$ F	C336	046-3332-78	0.033 $\mu$ F	D114	001-0516-90	MA111
C154	163-2263-35	16V22 $\mu$ F	C337	046-3332-78	0.033 $\mu$ F	D115	001-0516-90	MA111
C155	163-2263-35	16V22 $\mu$ F	C338	046-3332-78	0.033 $\mu$ F	D116	001-0334-30	RL202
C156	163-2263-35	16V22 $\mu$ F	C339	046-3332-78	0.033 $\mu$ F	D117	001-0516-90	MA111
C157	184-4773-32	16V470 $\mu$ F	C340	046-3332-78	0.033 $\mu$ F	D118	001-0516-90	MA111
C158	172-1041-11	0.1 $\mu$ F	C341	046-3332-78	0.033 $\mu$ F	D119	001-0584-21	MA8062
C159	163-2263-35	16V22 $\mu$ F	C342	046-3332-78	0.033 $\mu$ F	D120	001-0584-21	MA8062
C160	173-4711-10	470pFJ	C343	046-3332-78	0.033 $\mu$ F	D121	001-0584-21	MA8062
C161	046-1032-78	0.01 $\mu$ F	C344	046-3332-78	0.033 $\mu$ F	D122	001-0584-21	MA8062
C162	184-1083-31	16V1000 $\mu$ F	C345	046-3332-78	0.033 $\mu$ F	D302	001-0367-91	1SS226
C163	184-1083-31	16V1000 $\mu$ F	C346	046-3332-78	0.033 $\mu$ F	D303	001-0367-91	1SS226
C164	046-2232-78	0.022 $\mu$ F	C347	045-1007-50	10pF	FIL111	060-3103-90	NFM839RQ101B1
C165	168-1042-78	16V 0.1 $\mu$ F	C349	046-3332-78	0.033 $\mu$ F	FIL112	060-3103-90	NFM839RQ101B1
C166	168-1042-78	16V 0.1 $\mu$ F	C350	046-3332-78	0.033 $\mu$ F	IC102	051-5407-18	S-80721SN-DJ
C167	046-3332-78	0.033 $\mu$ F	C351	163-1063-35	16V10 $\mu$ F	IC103	051-7237-08	TC7W08F-EL
C168	046-3332-78	0.033 $\mu$ F	C352	163-1063-35	16V10 $\mu$ F	IC104	051-0869-58	NJM2103M
C169	046-3332-78	0.033 $\mu$ F	C353	046-3332-78	0.033 $\mu$ F	IC105	052-6057-00	M30624M8-F89GP
C170	046-3332-78	0.033 $\mu$ F	C354	046-3332-78	0.033 $\mu$ F	IC106	051-3218-90	TA76431F
C171	046-3332-78	0.033 $\mu$ F	C355	046-3332-78	0.033 $\mu$ F	IC107	051-3246-90	BA033FP
C172	046-3332-78	0.033 $\mu$ F	C356	046-3332-78	0.033 $\mu$ F	IC108	051-6600-38	CA0008AM
C173	046-3332-78	0.033 $\mu$ F	C357	046-3332-78	0.033 $\mu$ F	IC109	051-3243-00	PQ1CF1



REF No.	PART No.	DESCRIPTION
IC110	051-6387-08	PCM1720E
IC111	051-0350-93	NJM4558M
IC112	051-0350-93	NJM4558M
IC113	051-0350-93	NJM4558M
IC114	051-7243-08	TC7SET08F-TE85L
IC115	051-7232-08	74VHC4066M
IC116	051-7243-08	TC7SET08F-TE85L
IC117	051-7243-08	TC7SET08F-TE85L
IC301	052-6058-00	MR27V802D-37TPZA00
IC302	051-1443-09	TC7WU04F
IC303	051-9325-00	EM636165TS-6
IC304	051-9325-00	EM636165TS-6
IC305	051-9406-18	BR24C01AF-W-E2
IC306	051-7256-08	SN74AHCT1G32 DCKR
IC307	051-7276-08	SN74AHCT273PWR
IC308	051-6442-00	ADV7170SU
IC310	051-6441-00	ES4408FD
IC312	051-7222-08	TC7SH08F-EL
J101	074-1201-60	10P
J102	074-1201-68	18P
J103	075-0374-00	JACK $\phi$ 3.5
J104	074-1194-00	13P CE-NET
J105	074-0884-03	4P
J106	075-0386-00	JACK
J301	074-1189-00	50P
L101	010-3403-62	150 $\mu$ H
L102	010-2275-52	3.3 $\mu$ H
L103	010-2285-61	BLM21P300
L104	010-2285-61	BLM21P300
L105	010-2285-61	BLM21P300
L106	010-2285-65	BLM11P300SPT
L107	010-2285-65	BLM11P300SPT
L108	010-2285-65	BLM11P300SPT
L109	010-2285-65	BLM11P300SPT
L110	010-2285-65	BLM11P300SPT
L228	010-2285-80	BLM11B102SP
L230	010-2285-80	BLM11B102SP
L232	010-2285-80	BLM11B102SP
L234	010-2285-80	BLM11B102SP
L237	010-2285-80	BLM11B102SP
L239	010-2285-80	BLM11B102SP
L241	010-2285-80	BLM11B102SP
L242	010-2285-80	BLM11B102SP
L244	010-2285-80	BLM11B102SP
L246	010-2285-80	BLM11B102SP
L248	010-2285-80	BLM11B102SP
L250	010-2285-80	BLM11B102SP
L301	010-3100-60	0.68 $\mu$ H
L302	010-3100-67	2.7 $\mu$ H
L303	010-3100-62	1.0 $\mu$ H
L304	010-3100-60	0.68 $\mu$ H
L305	010-3100-67	2.7 $\mu$ H
L306	010-3100-62	1.0 $\mu$ H
P101	075-0385-00	JACK
P102	076-0478-62	12P
Q101	125-2005-91	UN2211
Q102	193-1802-60	2SD1802FA-R.S.T
Q103	125-2005-91	UN2211
Q104	125-2005-91	UN2211
Q105	192-2712-00	2SC2712
Q106	125-2005-91	UN2211
Q108	125-2005-91	UN2211
Q109	125-2005-91	UN2211
Q110	193-1306-00	2SD1306
Q111	193-1306-00	2SD1306
Q112	125-0001-91	UN2111
Q113	103-1683-00	2SD1683
Q114	193-1664-00	2SD1664P,Q,R
Q115	125-2005-91	UN2211
Q116	125-0001-91	UN2111
Q118	193-1664-00	2SD1664P,Q,R
Q120	125-2005-91	UN2211

REF No.	PART No.	DESCRIPTION
Q121	125-0001-91	UN2111
Q122	103-1683-00	2SD1683
Q123	193-1306-00	2SD1306
Q124	193-1306-00	2SD1306
Q125	125-0001-91	UN2111
Q126	125-2005-91	UN2211
R102	033-5621-15	1/16W 5.6k $\Omega$
R104	033-1041-15	1/16W 100k $\Omega$
R105	033-3301-15	1/16W 33 $\Omega$
R106	033-4721-15	1/16W 4.7k $\Omega$
R107	033-1041-15	1/16W 100k $\Omega$
R108	033-1041-15	1/16W 100k $\Omega$
R109	033-1041-15	1/16W 100k $\Omega$
R110	033-0000-05	1/16W 0 $\Omega$ (E-A,K-B)
R111	033-1041-15	1/16W 100k $\Omega$
R112	033-1031-15	1/16W 10k $\Omega$
R113	033-4721-15	1/16W 4.7k $\Omega$
R114	033-2221-15	1/16W 2.2k $\Omega$
R115	033-4731-15	1/16W 47k $\Omega$
R116	033-4731-15	1/16W 47k $\Omega$
R117	033-1041-15	1/16W 100k $\Omega$
R118	033-1031-15	1/16W 10k $\Omega$
R119	033-1031-15	1/16W 10k $\Omega$
R120	033-1031-15	1/16W 10k $\Omega$
R121	119-7501-15	1/16W 75 $\Omega$
R122	119-7501-15	1/16W 75 $\Omega$
R123	119-7501-15	1/16W 75 $\Omega$
R124	119-7501-15	1/16W 75 $\Omega$
R125	119-5121-15	1/16W 5.1k $\Omega$
R126	119-3021-15	1/16W 3k $\Omega$
R127	033-1031-15	1/16W 10k $\Omega$
R128	033-1021-15	1/16W 1k $\Omega$
R129	033-1041-15	1/16W 100k $\Omega$
R130	033-0000-05	1/16W 0 $\Omega$ (K-A)
R131	033-4731-15	1/16W 47k $\Omega$
R132	033-4731-15	1/16W 47k $\Omega$
R133	033-4731-15	1/16W 47k $\Omega$
R134	119-1831-15	1/16W 18k $\Omega$
R135	033-8221-15	1/16W 8.2k $\Omega$
R136	033-3321-15	1/16W 3.3k $\Omega$
R137	119-4321-15	1/16W 4.3k $\Omega$
R138	033-1041-15	1/16W 100k $\Omega$
R139	033-1241-15	1/16W 120k $\Omega$
R140	033-4731-15	1/16W 47k $\Omega$
R141	033-1541-15	1/16W 150k $\Omega$
R142	033-0000-05	1/16W 0 $\Omega$ (K-B)
R143	033-4721-15	1/16W 4.7k $\Omega$
R144	033-4731-15	1/16W 47k $\Omega$
R145	033-1041-15	1/16W 100k $\Omega$
R146	033-0000-05	1/16W 0 $\Omega$ (E-A,K-A,K-B)
R147	033-1021-15	1/16W 1k $\Omega$
R148	033-1021-15	1/16W 1k $\Omega$
R152	033-4731-15	1/16W 47k $\Omega$
R157	033-4731-15	1/16W 47k $\Omega$
R158	033-2211-15	1/16W 220 $\Omega$
R159	033-4731-15	1/16W 47k $\Omega$
R160	033-1011-15	1/16W 100 $\Omega$
R161	033-1011-15	1/16W 100 $\Omega$
R162	033-8221-15	1/16W 8.2k $\Omega$
R163	033-1031-15	1/16W 10k $\Omega$
R164	033-1031-15	1/16W 10k $\Omega$
R166	033-1031-15	1/16W 10k $\Omega$
R167	033-1231-15	1/16W 12k $\Omega$
R168	033-1231-15	1/16W 12k $\Omega$
R169	033-3301-15	1/16W 33 $\Omega$
R170	033-3301-15	1/16W 33 $\Omega$
R171	033-8211-15	1/16W 820 $\Omega$
R172	033-8211-15	1/16W 820 $\Omega$
R173	033-8211-15	1/16W 820 $\Omega$
R174	033-3331-15	1/16W 33k $\Omega$
R175	033-3301-15	1/16W 33 $\Omega$
R176	033-3331-15	1/16W 33k $\Omega$
R179	033-2211-15	1/16W 220 $\Omega$

REF No.	PART No.	DESCRIPTION
R180	033-4721-15	1/16W 4.7k $\Omega$
R181	033-1031-15	1/16W 10k $\Omega$
R183	033-4721-15	1/16W 4.7k $\Omega$
R184	033-2731-15	1/16W 27k $\Omega$
R185	033-2731-15	1/16W 27k $\Omega$
R186	033-1031-15	1/16W 10k $\Omega$
R187	033-1031-15	1/16W 10k $\Omega$
R188	033-1031-15	1/16W 10k $\Omega$
R192	033-8211-15	1/16W 820 $\Omega$
R193	033-1031-15	1/16W 10k $\Omega$
R195	033-1031-15	1/16W 10k $\Omega$
R196	033-1021-15	1/16W 1k $\Omega$
R197	033-3311-15	1/16W 330 $\Omega$
R198	033-3311-15	1/16W 330 $\Omega$
R199	033-1031-15	1/16W 10k $\Omega$
R200	033-1031-15	1/16W 10k $\Omega$
R201	033-1821-15	1/16W 1.8k $\Omega$
R202	033-1821-15	1/16W 1.8k $\Omega$
R203	033-1531-15	1/16W 15k $\Omega$
R204	033-1011-15	1/16W 100 $\Omega$
R205	033-4701-15	1/16W 47 $\Omega$
R206	033-1011-15	1/16W 100 $\Omega$
R207	033-1011-15	1/16W 100 $\Omega$
R208	033-1011-15	1/16W 100 $\Omega$
R209	033-1041-15	1/16W 100k $\Omega$
R210	033-1041-15	1/16W 100k $\Omega$
R211	033-1041-15	1/16W 100k $\Omega$
R212	033-1041-15	1/16W 100k $\Omega$
R213	033-1031-15	1/16W 10k $\Omega$
R214	033-1011-15	1/16W 100 $\Omega$
R215	033-1011-15	1/16W 100 $\Omega$
R220	033-1041-15	1/16W 100k $\Omega$
R221	033-1531-15	1/16W 15k $\Omega$
R222	033-3331-15	1/16W 33k $\Omega$
R223	033-3331-15	1/16W 33k $\Omega$
R224	033-2731-15	1/16W 27k $\Omega$
R225	033-2731-15	1/16W 27k $\Omega$
R226	033-1031-15	1/16W 10k $\Omega$
R227	033-1031-15	1/16W 10k $\Omega$
R229	119-0000-05	1/16W 0 $\Omega$ JW
R231	119-0000-05	1/16W 0 $\Omega$ JW
R233	119-0000-05	1/16W 0 $\Omega$ JW
R235	119-0000-05	1/16W 0 $\Omega$ JW
R236	119-0000-05	1/16W 0 $\Omega$ JW
R238	119-0000-05	1/16W 0 $\Omega$ JW
R240	119-0000-05	1/16W 0 $\Omega$ JW
R243	119-0000-05	1/16W 0 $\Omega$ JW
R245	119-0000-05	1/16W 0 $\Omega$ JW
R247	119-0000-05	1/16W 0 $\Omega$ JW
R249	119-0000-05	1/16W 0 $\Omega$ JW
R251	119-0000-05	1/16W 0 $\Omega$ JW
R301	033-4721-15	1/16W 4.7k $\Omega$
R302	033-4721-15	1/16W 4.7k $\Omega$
R303	033-3911-15	1/16W 390 $\Omega$
R305	033-1051-15	1/16W 1M $\Omega$
R306	119-7501-15	1/16W 75 $\Omega$
R307	119-7501-15	1/16W 75 $\Omega$
R308	119-7501-15	1/16W 75 $\Omega$
R309	119-7501-15	1/16W 75 $\Omega$
R310	119-7501-15	1/16W 75 $\Omega$
R311	033-1021-15	1/16W 1k $\Omega$
R312	033-1021-15	1/16W 1k $\Omega$
R313	119-7501-15	1/16W 75 $\Omega$
R314	033-1511-15	1/16W 150 $\Omega$
R316	033-0000-05	1/16W 0 $\Omega$
R318	033-0000-05	1/16W 0 $\Omega$
R319	119-7501-15	1/16W 75 $\Omega$
R320	119-7501-15	1/16W 75 $\Omega$
R321	033-4721-15	1/16W 4.7k $\Omega$
R322	033-4721-15	1/16W 4.7k $\Omega$
R323	033-3301-15	1/16W 33 $\Omega$
R324	033-3301-15	1/16W 33 $\Omega$
R328	033-4701-15	1/16W 47 $\Omega$
R330	033-4721-15	1/16W 4.7k $\Omega$

REF No.	PART No.	DESCRIPTION
R331	033-4721-15	1/16W 4.7k $\Omega$
R332	033-4701-15	1/16W 47 $\Omega$
R333	033-4701-15	1/16W 47 $\Omega$
R334	033-4701-15	1/16W 47 $\Omega$

REF No.	PART No.	DESCRIPTION
R335	119-0000-05	1/16W 0 $\Omega$ JW
R407	116-0000-05	1/8W 0 $\Omega$
S102	013-5112-00	SSSS223200
T101	009-0621-07	CHOKE

REF No.	PART No.	DESCRIPTION
X101	060-1505-50	10MHz
X301	061-3523-90	27MHz

#### Escutcheon PWB(B2) section

REF No.	PART No.	DESCRIPTION
C1	046-1032-78	0.01 $\mu$ F
D101	001-7045-92	CL-165HR/YG-D-T
D102	001-7045-92	CL-165HR/YG-D-T
D103	001-7045-92	CL-165HR/YG-D-T
D104	001-7045-92	CL-165HR/YG-D-T
D105	001-7045-92	CL-165HR/YG-D-T
D106	001-7045-92	CL-165HR/YG-D-T
D107	001-7064-91	CL-170YG-CD-T
IC1	051-6633-08	BU2092F-E2

REF No.	PART No.	DESCRIPTION
J1	074-1201-60	10P
R1	033-3311-15	1/16W 330 $\Omega$
R2	033-3311-15	1/16W 330 $\Omega$
R3	033-3311-15	1/16W 330 $\Omega$
R4	033-3311-15	1/16W 330 $\Omega$
R5	033-3311-15	1/16W 330 $\Omega$
R6	033-3311-15	1/16W 330 $\Omega$
R7	033-3311-15	1/16W 330 $\Omega$
R8	033-3311-15	1/16W 330 $\Omega$

REF No.	PART No.	DESCRIPTION
R9	033-3311-15	1/16W 330 $\Omega$
R10	033-3311-15	1/16W 330 $\Omega$
R11	033-3311-15	1/16W 330 $\Omega$
R12	033-3311-15	1/16W 330 $\Omega$
R13	033-3311-15	1/16W 330 $\Omega$
S1	013-6308-60	SKQYYA
S2	013-6308-60	SKQYYA

#### DVD PWB(B3) section

REF No.	PART No.	DESCRIPTION
C100	046-1032-78	0.01 $\mu$ F
C101	042-0397-50	16V1 $\mu$ F TAN
C102	046-1032-78	0.01 $\mu$ F
C103	046-1032-78	0.01 $\mu$ F
C104	046-1032-78	0.01 $\mu$ F
C105	046-1032-78	0.01 $\mu$ F
C106	046-1022-58	1000pF
C107	168-1042-78	16V 0.1 $\mu$ F
C108	042-0416-52	10V10 $\mu$ F TAN
C109	168-1042-78	16V 0.1 $\mu$ F
C110	168-1042-78	16V 0.1 $\mu$ F
C111	163-1073-15	6.3V100 $\mu$ F
C112	168-1042-78	16V 0.1 $\mu$ F
C113	046-4722-58	4700pF
C114	045-1007-50	10pF
C115	168-1042-78	16V 0.1 $\mu$ F
C116	163-1073-15	6.3V100 $\mu$ F
C117	046-4722-58	4700pF
C118	046-4722-58	4700pF
C119	168-1042-78	16V 0.1 $\mu$ F
C120	046-3312-58	330 $\mu$ F
C121	042-0416-52	10V10 $\mu$ F TAN
C122	045-1007-50	10pF
C123	168-1042-78	16V 0.1 $\mu$ F
C124	168-1042-78	16V 0.1 $\mu$ F
C125	046-1022-58	1000pF
C126	046-1022-58	1000pF
C127	042-0397-54	10V2.2 $\mu$ F TAN
C128	168-1042-78	16V 0.1 $\mu$ F
C129	042-0416-52	10V10 $\mu$ F TAN
C130	168-1042-78	16V 0.1 $\mu$ F
C131	042-0416-52	10V10 $\mu$ F TAN
C200	168-1042-78	16V 0.1 $\mu$ F
C201	168-1042-78	16V 0.1 $\mu$ F
C202	168-1042-78	16V 0.1 $\mu$ F
C203	168-1042-78	16V 0.1 $\mu$ F
C204	168-1042-78	16V 0.1 $\mu$ F
C205	168-1042-78	16V 0.1 $\mu$ F
C206	168-1042-78	16V 0.1 $\mu$ F
C207	168-1042-78	16V 0.1 $\mu$ F
C208	168-1042-78	16V 0.1 $\mu$ F
C209	168-1042-78	16V 0.1 $\mu$ F
C210	168-1042-78	16V 0.1 $\mu$ F
C300	168-1042-78	16V 0.1 $\mu$ F
C301	168-1042-78	16V 0.1 $\mu$ F
C302	168-1042-78	16V 0.1 $\mu$ F
C303	046-6822-58	6800pF
C304	046-3322-58	3300pF
C305	042-0416-52	10V10 $\mu$ F TAN
C306	045-1011-50	100pF
C307	168-1042-78	16V 0.1 $\mu$ F
C308	046-4712-58	470pF
C309	046-4722-58	4700pF

REF No.	PART No.	DESCRIPTION
C310	046-4722-58	4700pF
C311	046-3312-58	330 $\mu$ F
C312	046-3312-58	330 $\mu$ F
C313	046-3312-58	330 $\mu$ F
C314	046-3312-58	330 $\mu$ F
C315	168-1545-56	0.15 $\mu$ F
C316	168-1042-78	16V 0.1 $\mu$ F
C317	168-1042-78	16V 0.1 $\mu$ F
C318	168-1042-78	16V 0.1 $\mu$ F
C319	168-1042-78	16V 0.1 $\mu$ F
C320	168-1042-78	16V 0.1 $\mu$ F
C321	168-1042-78	16V 0.1 $\mu$ F
C322	168-1042-78	16V 0.1 $\mu$ F
C323	168-1042-78	16V 0.1 $\mu$ F
C324	168-1042-78	16V 0.1 $\mu$ F
C325	168-1042-78	16V 0.1 $\mu$ F
C326	042-0416-52	10V10 $\mu$ F TAN
C327	168-1042-78	16V 0.1 $\mu$ F
C328	046-2222-58	2200pF
C329	046-1022-58	1000pF
C330	046-1532-78	0.015 $\mu$ F
C400	168-1042-78	16V 0.1 $\mu$ F
C401	168-1042-78	16V 0.1 $\mu$ F
C402	168-1042-78	16V 0.1 $\mu$ F
C403	045-1007-50	10pF
C500	163-1073-35	16V100 $\mu$ F
C501	163-1073-15	6.3V100 $\mu$ F
C502	163-1073-15	6.3V100 $\mu$ F
C503	163-1073-15	6.3V100 $\mu$ F
C504	163-1073-15	6.3V100 $\mu$ F
C505	163-1073-15	6.3V100 $\mu$ F
C506	046-1032-78	0.01 $\mu$ F
C507	168-1042-78	16V 0.1 $\mu$ F
C508	168-1042-78	16V 0.1 $\mu$ F
C509	168-1042-78	16V 0.1 $\mu$ F
CCT500	050-0122-60	1/16W33 $\Omega$ $\times$ 4 J
CCT501	050-0122-60	1/16W33 $\Omega$ $\times$ 4 J
CCT502	050-0122-60	1/16W33 $\Omega$ $\times$ 4 J
CCT503	050-0122-60	1/16W33 $\Omega$ $\times$ 4 J
CCT504	050-0122-57	1/16W100 $\Omega$ $\times$ 4 J
D100	001-0367-91	1SS226
D101	001-0367-91	1SS226
D300	001-0356-96	1SS181
D500	001-0367-91	1SS226
IC100	051-3014-90	NJM2115M
IC101	051-5705-00	TA1254AF
IC200	051-6058-08	BA6859AFP
IC201	051-6060-08	BD7961FM-E2
IC300	051-9315-00	MSM514265C-50TS-K
IC301	051-6351-00	TC9453F
IC400	051-9315-00	MSM514265C-50TS-K

REF No.	PART No.	DESCRIPTION
IC401	051-6352-00	TC9469BF
IC500	052-5052-00	TMP95CW64F
IC501	051-5806-00	GP1S94
IC502	051-9416-08	BR24C02F-W-E2
J100	074-1059-80	30P
J101	076-0478-55	PLUG
J200	074-1158-58	8P
J201	074-1201-68	18P
J500	074-1201-68	18P
J501	074-1189-00	50P
J502	076-0478-55	PLUG
J503	076-0478-62	12P
J504	076-0478-57	7P
L100	010-3050-93	10 $\mu$ H
L101	010-3050-93	10 $\mu$ H
L500	010-2275-52	3.3 $\mu$ H
L501	010-2275-52	3.3 $\mu$ H
Q100	131-1188-50	2SB1188PQR
Q101	131-1188-50	2SB1188PQR
R100	033-3331-15	1/16W 33k $\Omega$
R101	033-3331-15	1/16W 33k $\Omega$
R102	033-1021-15	1/16W 1k $\Omega$
R103	033-1001-15	1/16W 10 $\Omega$
R104	033-2731-15	1/16W 27k $\Omega$
R105	033-1041-15	1/16W 100k $\Omega$
R106	033-1041-15	1/16W 100k $\Omega$
R107	033-1001-15	1/16W 10 $\Omega$
R108	033-1021-15	1/16W 1k $\Omega$
R109	033-5601-15	1/16W 56 $\Omega$
R110	033-5601-15	1/16W 56 $\Omega$
R111	033-1031-15	1/16W 10k $\Omega$
R200	119-4701-15	1/16W 47 $\Omega$
R201	032-0104-70	1/4W 1 $\Omega$
R202	032-0104-70	1/4W 1 $\Omega$
R203	033-1031-15	1/16W 10k $\Omega$
R204	033-1031-15	1/16W 10k $\Omega$
R206	033-3321-15	1/16W 3.3k $\Omega$
R207	033-2221-15	1/16W 2.2k $\Omega$
R208	033-1021-15	1/16W 1k $\Omega$
R209	119-4701-15	1/16W 47 $\Omega$
R210	033-1031-15	1/16W 10k $\Omega$
R211	033-1531-15	1/16W 15k $\Omega$
R212	033-1031-15	1/16W 10k $\Omega$
R213	033-2231-15	1/16W 22k $\Omega$
R300	033-5631-15	1/16W 56k $\Omega$
R301	033-2731-15	1/16W 27k $\Omega$
R302	033-5631-15	1/16W 56k $\Omega$
R303	033-2731-15	1/16W 27k $\Omega$
R304	033-1541-15	1/16W 150k $\Omega$
R305	033-1541-15	1/16W 150k $\Omega$
R306	033-1021-15	1/16W 1k $\Omega$
R307	033-1021-15	1/16W 1k $\Omega$
R308	033-1021-15	1/16W 1k $\Omega$

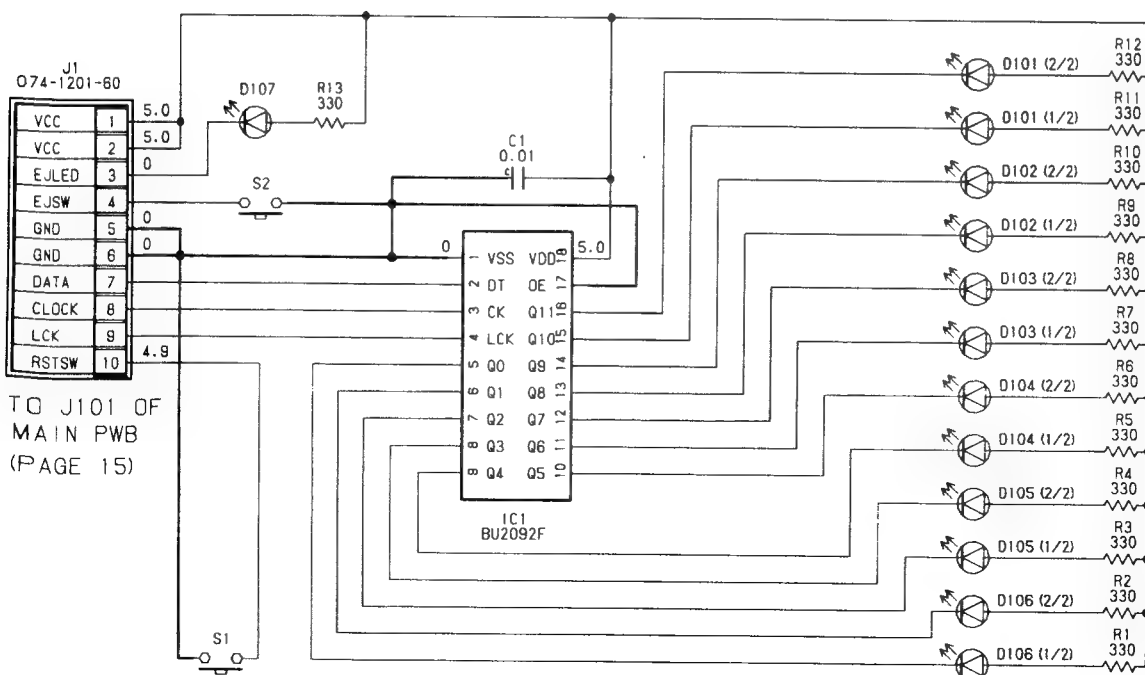
REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
R309	033-1021-15	1/16W 1kΩ	R337	033-2211-15	1/16W 220Ω	R517	033-8201-15	1/16W 82Ω
R310	033-1031-15	1/16W 10kΩ	R338	033-1521-15	1/16W 1.5kΩ	R518	033-1031-15	1/16W 10kΩ
R311	033-1031-15	1/16W 10kΩ	R339	033-4741-15	1/16W 470kΩ	R519	033-4731-15	1/16W 47kΩ
R312	033-1041-15	1/16W 100kΩ	R340	033-4721-15	1/16W 4.7kΩ	R520	033-4731-15	1/16W 47kΩ
R313	033-5621-15	1/16W 5.6kΩ	R341	033-1051-15	1/16W 1MΩ	R521	033-4731-15	1/16W 47kΩ
R314	033-1031-15	1/16W 10kΩ	R400	033-1051-15	1/16W 1MΩ	R522	033-4731-15	1/16W 47kΩ
R315	033-1031-15	1/16W 10kΩ	R401	033-1521-15	1/16W 1.5kΩ	R523	033-4731-15	1/16W 47kΩ
R316	033-1031-15	1/16W 10kΩ	R402	033-4731-15	1/16W 47kΩ	R524	033-4721-15	1/16W 4.7kΩ
R317	033-1031-15	1/16W 10kΩ	R403	033-0000-05	1/16W 0Ω	R525	033-1031-15	1/16W 10kΩ
R318	033-4731-15	1/16W 47kΩ	R404	033-1031-15	1/16W 10kΩ	R526	033-3311-15	1/16W 330Ω
R319	033-4731-15	1/16W 47kΩ	R500	033-1041-15	1/16W 100kΩ	R527	033-3311-15	1/16W 330Ω
R320	033-5621-15	1/16W 5.6kΩ	R501	033-4731-15	1/16W 47kΩ	R528	033-2711-15	1/16W 270Ω
R321	033-1031-15	1/16W 10kΩ	R502	033-1051-15	1/16W 1MΩ	R529	033-1021-15	1/16W 1kΩ
R322	033-1031-15	1/16W 10kΩ	R503	033-1021-15	1/16W 1kΩ	R530	033-1021-15	1/16W 1kΩ
R323	033-1031-15	1/16W 10kΩ	R504	033-1041-15	1/16W 100kΩ	R531	033-1041-15	1/16W 100kΩ
R324	033-1031-15	1/16W 10kΩ	R505	033-4721-15	1/16W 4.7kΩ	R532	033-4731-15	1/16W 47kΩ
R325	033-1031-15	1/16W 10kΩ	R506	033-4721-15	1/16W 4.7kΩ	R533	033-4731-15	1/16W 47kΩ
R326	033-1031-15	1/16W 10kΩ	R507	033-2201-15	1/16W 22Ω	R534	033-4731-15	1/16W 47kΩ
R327	033-2211-15	1/16W 220Ω	R508	033-8201-15	1/16W 82Ω	S500	013-7404-50	DETECTOR SWITCH
R328	033-4731-15	1/16W 47kΩ	R509	033-8201-15	1/16W 82Ω	S501	013-7404-50	DETECTOR SWITCH
R329	033-3321-15	1/16W 3.3kΩ	R510	033-1031-15	1/16W 10kΩ	X300	060-1524-90	CSTCW2257MX03
R330	033-1031-15	1/16W 10kΩ	R511	033-1031-15	1/16W 10kΩ	X400	060-1526-90	CSTCW5000MX01
R331	033-1531-15	1/16W 15kΩ	R512	033-4731-15	1/16W 47kΩ	X500	060-1525-90	CSACW2500MX01
R333	033-5631-15	1/16W 56kΩ	R513	033-8201-15	1/16W 82Ω			
R334	033-1031-15	1/16W 10kΩ	R514	033-1031-15	1/16W 10kΩ			
R335	033-1031-15	1/16W 10kΩ	R515	033-2201-15	1/16W 22Ω			
R336	033-2211-15	1/16W 220Ω	R516	033-1031-15	1/16W 10kΩ			

#### Loading PWB(B4) section

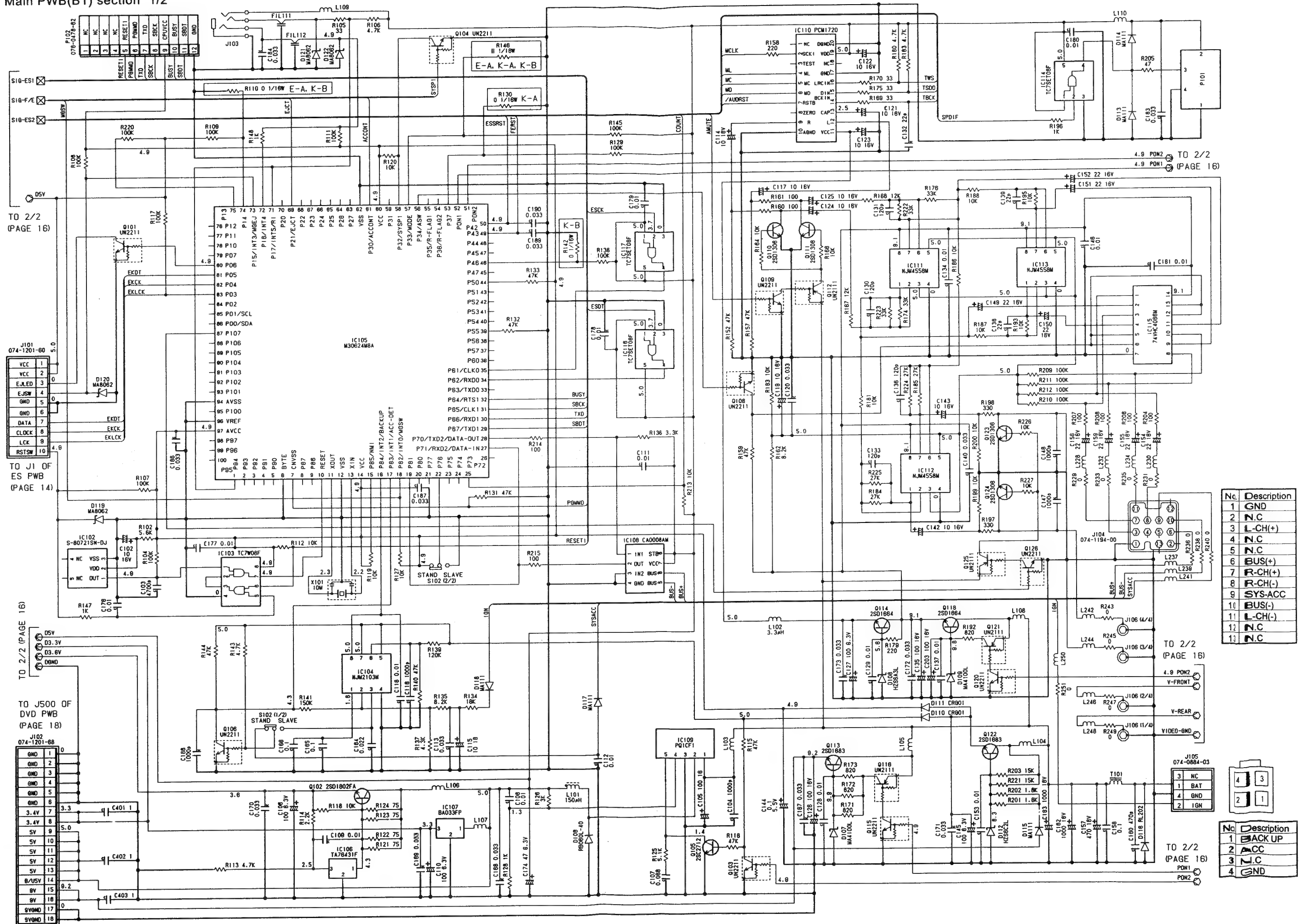
REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
D501	001-0563-00	GL380	S501	013-7413-50	SPVG12	S502	013-7413-50	SPVG12
Q501	060-0252-01	PT4850F						

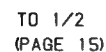
## CIRCUIT DIAGRAM

Escutcheon PWB section(B2)

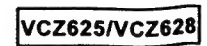


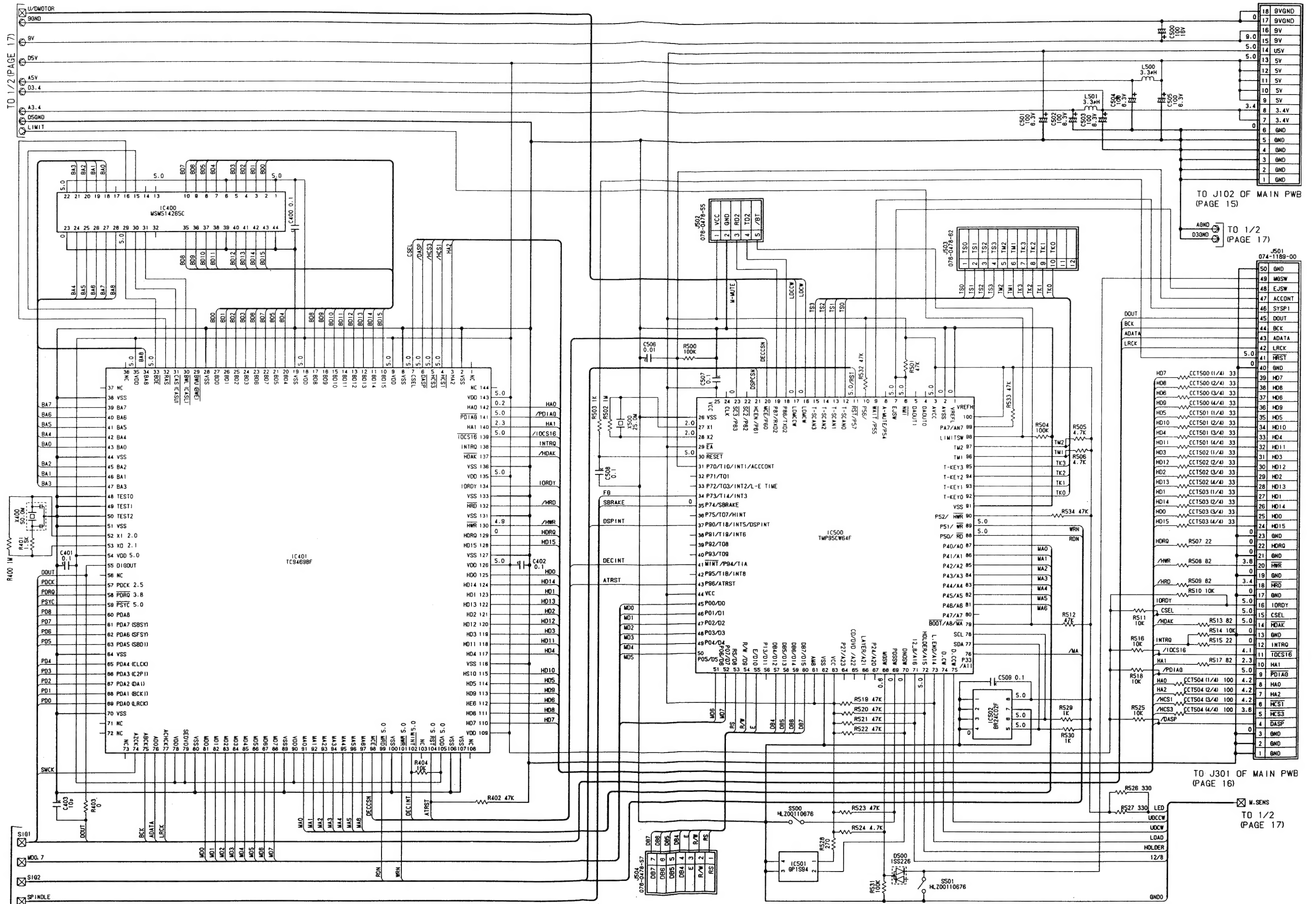
## Main PWB(B1) section 1/2







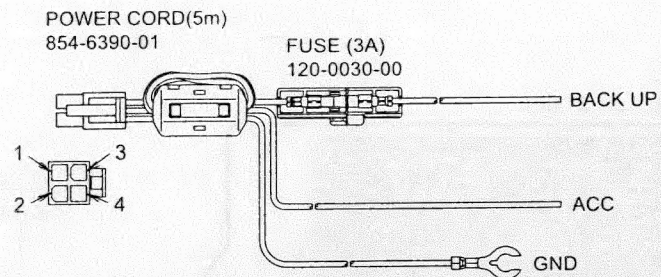






■ PRINTED WIRING BOARD

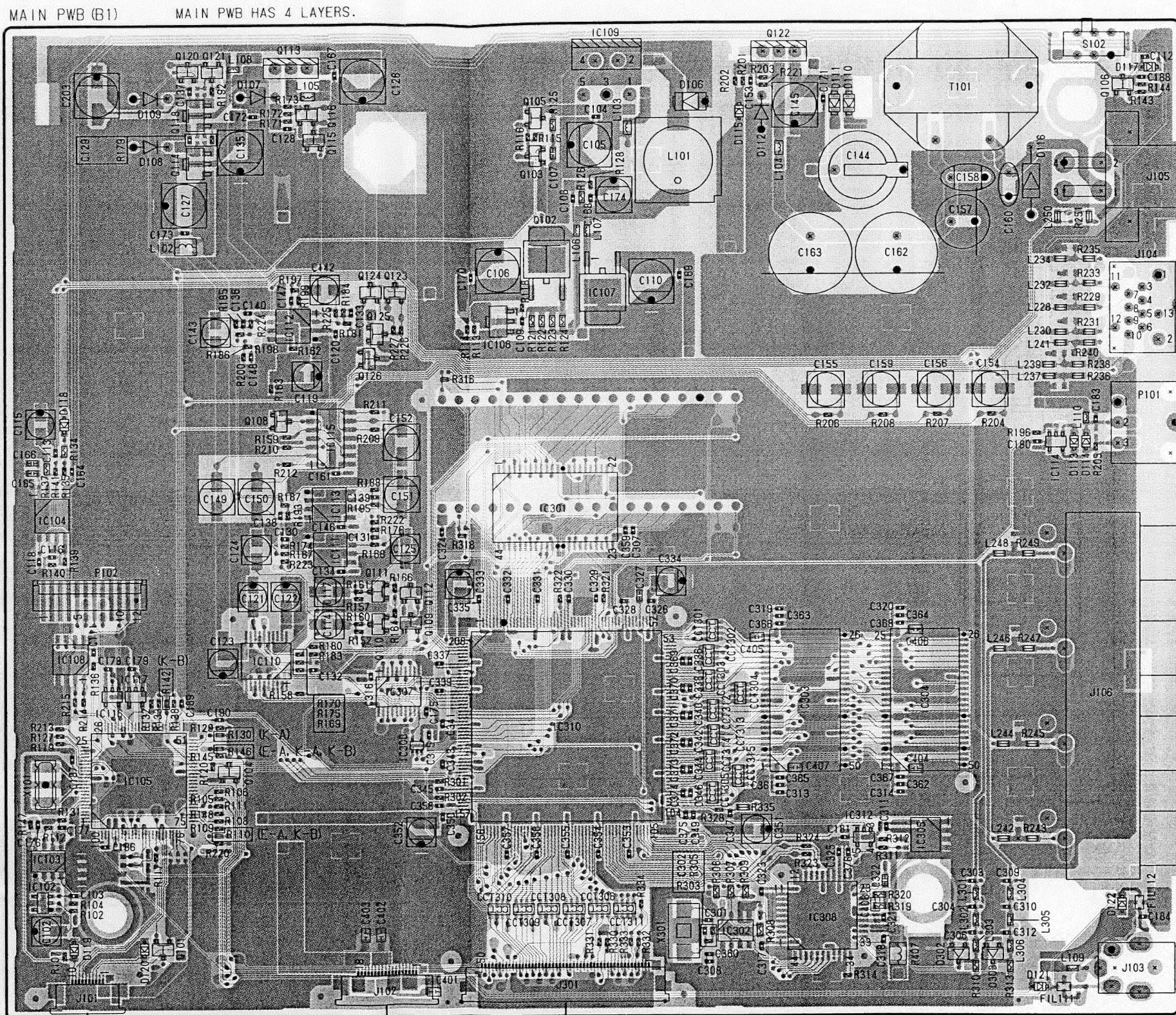
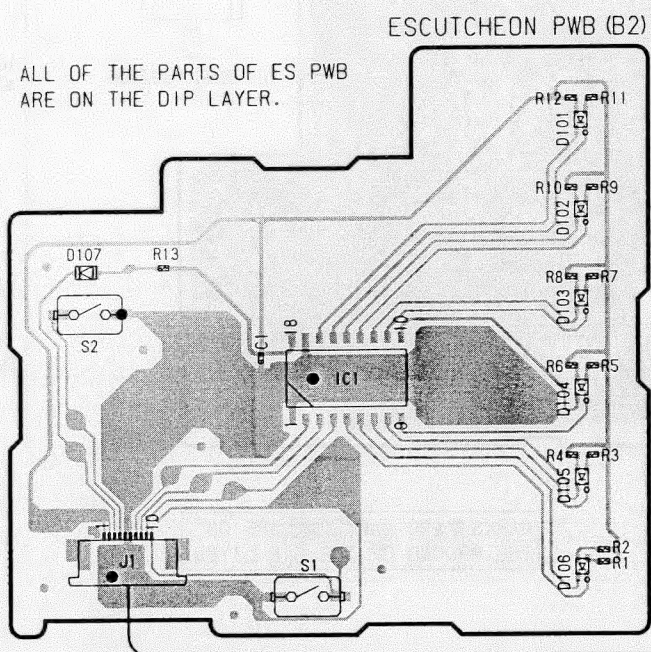
Main PWB(B1) / Escutcheon PWB(B2) section



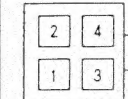
Pin No.	Color	Description
1	YEL	BACK UP
2	RED	ACC
3	-	N.C
4	BLK	GND

J104 Ce-NET	
No.	Description
1	GND
2	N.C
3	L-CH(+)
4	N.C
5	N.C
6	BUS(+)
7	R-CH(+)
8	R-CH(-)
9	SYS-ACC
10	BUS(-)
11	L-CH(-)
12	N.C
13	N.C

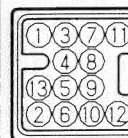
MARKS ● AND MARKS GND ARE ON THE GROUND OF THE DIP LAYER.



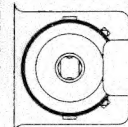
POWER SUPPLY



Ce-NET



OPTICAL OUT



RCA JACK



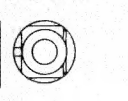
VIDEO OUT



AUDIO OUT



REMOTE



TO J500 OF DVD PWB (PAGE 20)

TO J501 OF DVD PWB (PAGE 20)

108	110
104	106
103	
102	

110	112	115	307	306
		113		
		111		

106

---

105  
103  
102

302            303   308   312            304                            114

122

106



